

SEQUENCE LISTING

(1) GENERAL INFORMATION

- (i) APPLICANT: Hillman, Jennifer L.
Tang, Y. Tom
Corley, Neil C.
Guegler, Karl J.
Yue, Henry
Patterson, Chandra
- ii) TITLE OF THE INVENTION: PROTEINS ASSOCIATED WITH EGF SIGNALING
- iii) NUMBER OF SEQUENCES: 5
- iv) CORRESPONDENCE ADDRESS:
(A) ADDRESSEE: Incyte Genomics, Inc.
(B) STREET: 3160 Porter Dr.
(C) CITY: Palo Alto
(D) STATE: CA
(E) COUNTRY: USA
(F) ZIP: 94304
- v) COMPUTER READABLE FORM:
(A) MEDIUM TYPE: Diskette
(B) COMPUTER: IBM Compatible
(C) OPERATING SYSTEM: DOS
(D) SOFTWARE: FastSEQ for Windows Version 2.0
- vi) CURRENT APPLICATION DATA:
(A) APPLICATION NUMBER: To Be Assigned
(B) FILING DATE: Herewith
- vii) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: 09/069,725
(B) FILING DATE: April 29, 1998
- viii) ATTORNEY/AGENT INFORMATION:
(A) NAME: Billings, Lucy J.
(B) REGISTRATION NUMBER: 36,749
(C) REFERENCE/DOCKET NUMBER: PF-0515-1 CON
- ix) TELECOMMUNICATION INFORMATION:
(A) TELEPHONE: 650-855-0555
(B) TELEFAX: 650-845-4166

(2) INFORMATION FOR SEO ID NO:1:

- ```
(vi) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 298 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(vii) IMMEDIATE SOURCE:
 (A) LIBRARY: COLNNOT16
 (B) CLONE: 1281694

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
```

Met Asn Asp Ser Leu Arg Thr Asp Val Phe Val Arg Phe Gln Pro Glu  
1 5 10 15

Ser Ile Ala Cys Ala Cys Ile Tyr Leu Ala Ala Arg Thr Leu Glu Ile  
 20 25 30  
 Pro Leu Pro Asn Arg Pro His Trp Phe Leu Leu Phe Gly Ala Thr Glu  
 35 40 45  
 Glu Glu Ile Gln Glu Ile Cys Leu Lys Ile Leu Gln Leu Tyr Ala Arg  
 50 55 60  
 Lys Lys Val Asp Leu Thr His Leu Glu Gly Glu Val Glu Lys Arg Lys  
 65 70 75 80  
 His Ala Ile Glu Glu Ala Lys Ala Gln Ala Arg Gly Leu Leu Pro Gly  
 85 90 95  
 Gly Thr Gln Val Leu Asp Gly Thr Ser Gly Phe Ser Pro Ala Pro Lys  
 100 105 110  
 Leu Val Glu Ser Pro Lys Glu Gly Lys Gly Ser Lys Pro Ser Pro Leu  
 115 120 125  
 Ser Val Lys Asn Thr Lys Arg Arg Leu Glu Gly Ala Lys Lys Ala Lys  
 130 135 140  
 Ala Asp Ser Pro Val Asn Gly Leu Pro Lys Gly Arg Glu Ser Arg Ser  
 145 150 155 160  
 Arg Ser Arg Ser Arg Glu Gln Ser Tyr Ser Arg Ser Pro Ser Arg Ser  
 165 170 175  
 Ala Ser Pro Lys Arg Arg Lys Ser Asp Ser Gly Ser Thr Ser Gly Gly  
 180 185 190  
 Ser Lys Ser Gln Ser Arg Ser Arg Ser Arg Ser Asp Ser Pro Pro Arg  
 195 200 205  
 Gln Ala Pro Arg Ser Ala Pro Tyr Lys Gly Ser Glu Ile Arg Gly Ser  
 210 215 220  
 Arg Lys Ser Lys Asp Cys Lys Tyr Pro Gln Lys Pro His Lys Ser Arg  
 225 230 235 240  
 Ser Arg Ser Ser Arg Ser Arg Ser Arg Ser Arg Glu Arg Ala Asp  
 245 250 255  
 Asn Pro Gly Lys Tyr Lys Lys Lys Ser His Tyr Tyr Arg Asp Gln Arg  
 260 265 270  
 Arg Glu Arg Ser Arg Ser Tyr Glu Arg Thr Gly Arg Arg Tyr Glu Arg  
 275 280 285  
 Asp His Pro Gly His Ser Arg His Arg Arg  
 290 295

## (2) INFORMATION FOR SEQ ID NO:2:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3464 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

## (vii) IMMEDIATE SOURCE:

- (A) LIBRARY: COLNOT16  
 (B) CLONE: 1281694

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

|            |            |            |            |             |             |     |
|------------|------------|------------|------------|-------------|-------------|-----|
| TTCGTGAAGC | ACTCCATGGA | GCATGTGTCA | ATGGCCTGTG | TCCACCTGGC  | TTCCAAGATA  | 60  |
| GAGAGAGCCC | CAAGACGCAT | ACGGGACGTC | ATCAATGTGT | TTACACGCGCT | TCGACAGCTG  | 120 |
| AGAGACAAAA | AATAATCGTT | ATGTACCTTC | AGGTGTAGTA | GTGTGAGCGT  | AACCAACACC  | 180 |
| TGGTCCAGAC | CTCATGGGTA | GCCTCTGAGG | GTAAGTGACT | AAGACTTTCT  | CTCTGCTGTC  | 240 |
| CAAGCGCTTT | GGTGCAGGGA | CAGCGGCATC | TTACGCCAAT | CCAGTGCAGG  | CTCTCCACCG  | 300 |
| AAGGCTGGCT | CTAGACTGGT | GACCCCTTGT | TGAAATGGGA | CAGTTGGCAG  | CGGCTCTGAT  | 360 |
| GAGCCCGAGA | AGAGGCGCTG | CCTTGGGTGC | GGAGTCTCCC | TCCGACACGAT | GCTCCACGCG  | 420 |
| GTCCAACCTG | CACCCAAGGG | GCTTTTCCCT | CTTCCAAGTG | GACTCCTTCA  | AGGAAGCTGC  | 480 |
| AGCTCGGTCA | GCAGAGAAGG | GGCCTGCCGC | CAGCGCCCTG | GAGGAAGAGG  | AAGAGGAACC  | 540 |
| CAAGAGGATG | GCTTGTCTCC | CAGCAGCCAC | ACCGGCTTTG | TGCTCAGCCA  | GTTCAATTTGA | 600 |
| GTTTGATGTT | TTTCTGTGAC | TATGGATTTT | GAGCATTTAG | ATTTCTTTAA  | TCAAAAGCGT  | 660 |
| TTTAGTGACT | CCAGTAGACA | TTTCTTTTCT | GAGGCATCGT | GCTTTGCATG  | AGAGCAGGCC  | 720 |
| AAGGTTGAGG | GGAAAAGTAA | AGTTAAAGTC | GGTTCTCTTT | CATAGCAACA  | CGTATTGTCT  | 780 |
| GACATTGACG | CAGCTTTTCT | TTTTTCTAAT | AATTTCTGTG | CCTTTCTGTC  | CTGTATTTAC  | 840 |
| TGTATTTAGA | AAAAGCAGCT | AGAATATTTT | TCCATTAACT | CTTGAGATTC  | ACAGGACTGT  | 900 |

|             |             |             |             |            |             |      |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| CTAGCTCTGA  | GTCCCTAGCAA | TAGACTCCTT  | AGAGGAGTAG  | TACGTTTATC | TAGATTTTCT  | 960  |
| CTAGATAATG  | CAGGCGGAAG  | ACCTGGGTTT  | CCGGTGGGG   | CATTGCAAGT | CTTCCCTGTG  | 1020 |
| TTGGCTTCCA  | GGAAATTACAT | GAACGACAGC  | CTTCGCACCG  | ACGTCTTCGT | GCGGTTCCAG  | 1080 |
| CCAGAGAGCA  | TGCGCTGTGC  | CTGCATTAT   | CTTGCTGCC   | GGACGCTGG  | GATCCCTTTG  | 1140 |
| CCCAATCGTC  | CCCAATTGGTT | TCTTTTGT    | GGAGCAACTG  | AAGAAGAAAT | TCAGGAATTC  | 1200 |
| TGCTTAAAGA  | TCTTGCAGCT  | TTATGCTCGG  | AAAAAGGTTG  | ATCTCACACA | CTTGGAGGGT  | 1260 |
| GAAGTGGAAA  | AAAGAAAGCA  | CGCTATCGAA  | GAGGCAAGG   | CCCAAGCCCG | GGGCTGTGTT  | 1320 |
| CCTTGGGGACA | CACAGGTGCT  | GGATGGTACC  | TGCGGGTTCT  | CTCCTGCCCC | CAAGCTGGTG  | 1380 |
| GAATCCCCCA  | AAGAAGGTAA  | AGGGAGCAAG  | CCTTCCCCAC  | TGCTGTGAA  | GAACACCAAG  | 1440 |
| AGGAGGCTGG  | AGGGCGCCAA  | GAAAGCCAA   | GCGGACAGCC  | CGCTGAACGG | CTTGGCCAAAG | 1500 |
| GGGCGAGAGA  | GTCCGAGTGC  | GAGCGGAGC   | CGTGAGCAGA  | GCTACTCGAG | GTCCCCATCC  | 1560 |
| CGATCAGCGT  | CTCCTAAGAG  | GAGGAAAAGT  | GACAGCGGCT  | CCACATCTGG | TGGGTCCAAG  | 1620 |
| TGCGAGAGAG  | GCTCCCGGAG  | CAGGAGTGAC  | TCCCCACCAG  | GACAGGCCCC | CCGACGCGCT  | 1680 |
| CCCTACAAAG  | GCTCTGAGAT  | TGCGGGCTCC  | CGGAAGTCCA  | AGGACTGCAA | GTACCCCAAG  | 1740 |
| AAGCCACACA  | AGTCTCGGAG  | CCGGAGTTCT  | TCCCGTTCTC  | GAAGCAGGTC | ACGGGAGCGG  | 1800 |
| GCGGATAATC  | CGGGAATAA   | CAAGAAGAAA  | AGTCAATTACT | ACAGAGATCA | GCGACGAGAG  | 1860 |
| CGCTCGAGGT  | CGTATGAACG  | CACAGGCCGT  | CGCTATGAGC  | GGGACCAACC | TGGGCACACG  | 1920 |
| AGGCATCGGA  | GGTGAGGCGG  | GGTTGCAGTG  | ACTGGTGGCC  | GCAAGCCCTT | CCCTGGGGAG  | 1980 |
| TACCTGATGG  | CTGCCCCTTG  | ACCCCCGGTG  | GTGCCCCCTT  | GACCCCCGGG | TGTGCTCTCA  | 2040 |
| GCGCAAGTGG  | TCCTAGAAC   | GGATTCTTTT  | TGGAAATGTC  | TGTCGACTGG | ACCTTGGTGG  | 2100 |
| ATTTTGAAAT  | GGAACTGAGG  | GACCGGTGAC  | ACGTGCTTCA  | GACCGGTCTG | GGGTGCGGGC  | 2160 |
| CACACATGGG  | CACGCTGAGG  | GCTCAGCTCG  | GCAGCAGCTC  | TGAGGCGAGC | CTAATGAAAA  | 2220 |
| AGTGAATAGG  | CACGCCCTTG  | TGCGCTGGC   | CTGGCATGGC  | CTGTGCTAT  | CGCGAGCCGC  | 2280 |
| TCTCTACTCC  | CCGACTGATA  | CTCAATTACG  | TGAAGCCAAG  | AAAGATGATT | TTTATGAACCT | 2340 |
| TTGCCATAT   | TAGGTTTGAT  | TTATGTACAT  | ATTTTGCAGT  | GTTTTACAGG | AGAAAGTGGC  | 2400 |
| CTTAACTGCC  | CTTATPTCT   | TCTCCACGTT  | GTAATAAAC   | ATGTGTTTAA | TACAAGTTAA  | 2460 |
| AGCTATGTAT  | GAAGAACTCAG | AACTTGAACT  | CCGTGAGCTT  | AAAACCTTGT | TAGGGAATCC  | 2520 |
| TGACTTTTAA  | AATGTGAGGG  | TAATTTGGATC | TGTGTTGAAA  | GTCTGATATG | TTTATCTGTG  | 2580 |
| CGGTGCTGAG  | TGCAGGCCAC  | CAGCTCCTAA  | ATAGAGGTTT  | CCATATATGC | GTATGACAT   | 2640 |
| GGTGAATAAA  | CACAACTCTC  | TCCACTCAGG  | ACATCCGAG   | CGTTATAGGC | GTGTAGGTG   | 2700 |
| GTGCTTCTGT  | GTGCTGTGTA  | AAATGTCCAG  | GCCTGTGAC   | AGCCAGTGGC | CCCACTTCCG  | 2760 |
| GGCTCTCTGC  | TGCTCTGCTG  | ACTGAAGTTT  | TGGATTTTGC  | ATCCAATCTT | GTGTGCTTGC  | 2820 |
| CTTCTGCGCG  | AAGCTTGTGA  | GGGCGCTGAG  | TCTCTGCCCC  | ATCCAGATGA | CAGGCTTCTT  | 2880 |
| CTTGAGGGG   | CATAGGAGG   | AAGTTTGTGA  | AACACAGAAT  | GATTTCCAAG | TGCTTCTGTT  | 2940 |
| CCTGAGGGGG  | ACTGTTTGTG  | AACCCATGAC  | ATCTGTGGGG  | GAGAGAGGCA | GCTGGGAGCA  | 3000 |
| GGACACTTGG  | AGGGTCAACC  | CACGGGGGTG  | GCACCTGCAC  | TCTGAGTGGC | CCCCACTGTC  | 3060 |
| ATCAGCTTGC  | CTTTACCGTG  | GACACAGTTT  | TGTTTGTGGG  | GACTAGGGGG | CCCCACTGCT  | 3120 |
| GGTGTATCCG  | TTTGACCTTA  | CTAGGCGAGT  | GGGACATATA  | GGCCGGGGCT | AGTGGGATAA  | 3180 |
| CGGGGAGTTA  | CGCTGATGA   | CTTTTGTGAT  | GGAATCTTGC  | ATTAGATAGC | TGTTGGGACC  | 3240 |
| CCCCCTCAG   | AATTTGGGAA  | CTGAGGAGAC  | TCCAGGGAGG  | GTGTCTTCC  | AGGGAGAGCA  | 3300 |
| GCTATGAGGG  | GCCCCCTAGC  | TCTCTGTGCC  | TGGAAGTAA   | AGAACCAGTA | AAGGGCCATA  | 3360 |
| CACACCTGTA  | CCCAAGAGAC  | CGCTCTCCAT  | TTGCTTTCTT  | TTTGTACTAA | ATAATTGTAA  | 3420 |
| AATATTATTA  | TGACATTAAG  | AACCATTTAA  | GGCCAAAAAA  | AAAA       |             | 3464 |

0984852-2584860

## (2) INFORMATION FOR SEQ ID NO:3:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 332 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (vii) IMMEDIATE SOURCE:

- (A) LIBRARY: BEPINOT01
- (B) CLONE: 2056178

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Met Tyr Ser Ala Gln Arg Phe Trp Gly Thr Ile Trp Ala Arg Arg Gly  
 1 5 10 15  
 Ala His Leu Ala Pro Pro Asp Ala Ser Ile Leu Ile Ser Asn Val Cys  
 20 25 30  
 Ser Ile Gly Asp His Val Ala Gln Glu Leu Phe Gln Gly Ser Asp Leu  
 35 40 45  
 Gly Met Ala Glu Glu Ala Glu Arg Pro Gly Glu Lys Ala Gly Gln His  
 50 55 60  
 Ser Pro Leu Arg Glu Glu His Val Thr Cys Val Gln Ser Ile Leu Asp  
 65 70 75 80  
 Glu Phe Leu Gln Thr Tyr Gly Ser Leu Ile Pro Leu Ser Thr Asp Glu  
 85 90 95  
 Val Val Glu Lys Leu Glu Asp Ile Phe Gln Gln Glu Phe Ser Thr Pro  
 100 105 110  
 Ser Arg Lys Gly Leu Val Leu Gln Leu Ile Gln Ser Tyr Gln Arg Met  
 115 120 125  
 Pro Gly Asn Ala Met Val Arg Gly Phe Arg Val Ala Tyr Lys Arg His  
 130 135 140  
 Val Leu Thr Met Asp Asp Leu Gly Thr Leu Tyr Gly Gln Asn Trp Leu  
 145 150 155 160  
 Asn Asp Gln Val Met Asn Met Tyr Gly Asp Leu Val Met Asp Thr Val  
 165 170 175  
 Pro Glu Lys Val His Phe Phe Asn Ser Phe Phe Tyr Asp Lys Leu Arg  
 180 185 190  
 Thr Lys Gly Tyr Asp Gly Val Lys Arg Trp Thr Lys Asn Val Asp Ile  
 195 200 205  
 Phe Asn Lys Glu Leu Leu Leu Ile Pro Ile His Leu Glu Val His Trp  
 210 215 220  
 Ser Leu Ile Ser Val Asp Val Arg Arg Arg Thr Ile Thr Tyr Phe Asp  
 225 230 235 240  
 Ser Gln Arg Thr Leu Asn Arg Arg Cys Pro Lys His Ile Ala Lys Tyr  
 245 250 255  
 Leu Gln Ala Glu Ala Val Lys Lys Asp Arg Leu Asp Phe His Gln Gly  
 260 265 270  
 Trp Lys Gly Tyr Phe Lys Met Asn Val Ala Arg Gln Asn Asn Asp Ser  
 275 280 285  
 Asp Cys Gly Ala Phe Val Leu Gln Tyr Cys Lys His Leu Ala Leu Ser  
 290 295 300  
 Gln Pro Phe Ser Phe Thr Gln Gln Asp Met Pro Lys Leu Arg Arg Gln  
 305 310 315 320  
 Ile Tyr Lys Glu Leu Cys His Cys Lys Leu Thr Val  
 325 330

## (2) INFORMATION FOR SEQ ID NO:4:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1991 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (vii) IMMEDIATE SOURCE:

(A) LIBRARY: BEPINOT01

(B) CLONE: 2056178

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

```

GCCTCCCTGT CCCCAGACC TCTTTTGATG CCTCAGCAAG TGAAGAGGAG GAAGAAGAGG 60
AGGAGGAGGAG GGATGAAGAT GAAGAGGAGG AAGTGGCAGC TTGGAGGCTG CCCCCAAGAT 120
GGAGTCAGCT GGGAACTCC CAGCGGCCCC GCCCTTCCCG CCCCACCTCAT CGAAAAACCT 180
GCTCAGCAGG CGCGCGCGGA GCCATGAGAG CCTTCCGGAT GCTGCTCTAC TCAAAAAGCA 240
CCTCGCTGAC ATTCCACTGG AAGCTTTGGG GGGCCACCCG GGGCCGCGGG CGGGGCGCTG 300
CACACCCCAA GAACCATCTT TCACCCAGAG AAGGGGGTGC GACGCCACAG GTGCCATCCC 360
CCTGTTGTGC TTTTGACTCC CCCCAGGGGC CACCTCCACC CGGGTGGGTG CTGCTAGGTG 420
CTCTCATGGC TGAGGATGGG GTGAGAGGGT CTCACACAGT GCCCTCTGGG CCCCCATGG 480
AGGAAGATGG ACTCAGGTGG ACTCCAAAGT CTCCTCTGGA CCCTGACTCG GGCCTCCTTT 540
CATGTACTCT GCCCAACGGT TTTGGGGGAG AATCTGGGCC AGAAGGGGAG CGCACTTGGC 600
ACCCCTCAT GCCAGCATCC TCATCAGCAA TGTGTGCAGC ATCGGGGACC ATGTGGCCCA 660
GGAGCTTTT CAGGGCTCAG ATTTGGGCAT GGCAGAGAG GCAGAGAGGC CTGGGAGGAA 720
AGCCGGCCAG CACAGCCCC TGCAGAGGGA GCATGTGACC TGCGTACAGA GCATCTTGA 780
CGAATTCTT CAAACGTAT GCAGCCTCAT ACCCTCAGC ACTGATGAG TAGTAGAGAA 840
GCTGGAGGAC ATTTTCCAGC AGGAGTTTTC CACCCCTTCC AGGAAGGGCC TGGTGTGGA 900
GCTGATCCAG TCTTACCAG GGATGCCAGG CAATGCCATG GTGAGGGGCT TCCGATGGC 960
TTATAAGCG CAGTGTCTGA CCATGGATGA CTGGGGACC TTGTATGGAC AGAACTGGCT 1020
CAATGACCA GTGATGAACA TGTATGGAGA CTTGGTACAT GACACAGTCC CTGAAAGGT 1080
CGATTCTTC AATAGTTTTC TCTATGATA ACTCCGTACC AAGGTTTAT ATGGGCTGAA 1140
AAGTGGAGC AAAAAGCTGG ACATCTTCAA TAAGGAGCTA CTGCTAATCC CCAATCACCT 1200
GGAGTGTGAT TGGTCCGCTA TCTCTGTGA TGTAGGGGGA GCACCATCA CTATTTTTGA 1260
CTCGCAGGT ACCCTAAACC GCGCTGCC TAAGCATATT GCCAAGTATC TACAGCGACA 1320
GGCGGTAAAG AAGACCGAC TGGATTTC CAGGGCTGG AAGGTTACT TCAAAATGAA 1380
TGTGGCCAG CACAATATG ACAGTGACTG TGTGCTTTT GTGTTGCAAT ACTCGAAGCA 1440
TCTGGCCCTG TCTCAGCTAT TCAGCTTCA CCAGCAGAG ATGCCCAAAC CTGCTCGGCA 1500
GATCTACAGA GAGCTGTGTC ACTGCAAACT CACTGTGTGA GCCTCTTACC CCAGACCCCA 1560
GATCAATAAA TGGGAAGGAG GACATGGGAG TCCCTTTCCA AGAACTTCCC TGGCTTTTCC 1620
TCTCTTGCCT CTCCCACTC ACTTCCCTT GGTTTTTCAT ATTTAAATGT TCAAAATTC 1680
GTATTTTTC TPTCTTGAGA GAATACTTGT TGAATTTTCA GTGCAGGGG GTGCTACAG 1740
AAAAGCCCT TTCTTCTCT GTTTCAGGG GAGTGTGGC CTGTGGCGTC GGTGAGCAG 1800
TCATCTCCC CTTTCCCGT GCAGGGAGCA GGAATACAT GCTGGGGCT GTGGCGGAC 1860
AATAGATCA CTGCTCGCA GATCTTCAA CTTTATATA TATATATATA TATATATATA 1920
TATATATATA TATATATATA TATATATATA AATATATAAA TGCCACGGTC CTGCTCTGCT 1980
CAATAAAGAT C

```

## (2) INFORMATION FOR SEQ ID NO:5:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 186 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

## (vii) IMMEDIATE SOURCE:

- (A) LIBRARY: GenBank  
 (B) CLONE: 1276645

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

```

Met Glu Gly Pro Lys Lys Ala Gln Gly His Ser Pro Val Asn Gly Leu
1 5 10 15
Leu Lys Gly Gln Glu Ser Arg Ser Gln Ser Arg Ser Arg Glu Gln Ser
20 25 30
Tyr Ser Arg Ser Pro Ser Arg Ser Ala Ser Pro Lys Arg Arg Lys Ser
35 40 45
Asp Ser Gly Ser Thr Ser Gly Gly Ser Lys Ser Gln Ser Arg Ser Arg
50 55 60
Ser Arg Ser Asp Ser Pro Pro Arg Gln Val His Arg Gly Ala Pro Tyr
65 70 75 80
Lys Gly Ser Glu Val Arg Gly Ser Arg Lys Ser Lys Asp Cys Lys Tyr
85 90 95

```

PF-0515-1 CON

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Thr | Gln | Lys | Pro | His | Lys | Ser | Arg | Ser | Arg | Ser | Ser | Ser | Arg | Ser |
|     |     | 100 |     |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Arg | Ser | Arg | Ser | Arg | Glu | Arg | Thr | Asp | Asn | Ser | Gly | Lys | Tyr | Lys | Lys |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Lys | Ser | His | Tyr | Tyr | Arg | Asp | Gln | Arg | Arg | Glu | Arg | Ser | Arg | Ser | Tyr |
|     |     | 130 |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Glu | Arg | Thr | Gly | His | Arg | Tyr | Glu | Arg | Asp | His | Pro | Gly | His | Ser | Arg |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| His | Arg | Arg | Cys | Asp | Arg | Ile | Ser | Gly | Gly | Cys | Pro | Trp | Ser | Leu | Pro |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Val | Gly | His | Thr | Leu | Ala | Ser | Val | Ala | Leu |     |     |     |     |     |     |
|     |     |     |     | 180 |     |     |     |     | 185 |     |     |     |     |     |     |

03648852.050401